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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,115	09/19/2003	Russell Norman Mirov	SUN03-0112	8531
57960 7590 01/05/2010 PVF -- SUN MICROSYSTEMS INC. C/O PARK, VAUGHAN & FLEMING LLP 2820 FIFTH STREET DAVIS, CA 95618-7759				
EXAMINER				
DINH, TUAN T				
ART UNIT		PAPER NUMBER		
2841				
MAIL DATE		DELIVERY MODE		
01/05/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/667,115

**Applicant(s)**

MIROV, RUSSELL NORMAN

**Examiner**

Tuan T. Dinh

**Art Unit**

2841

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 7, 34-39 and 41-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 7, 34-39, 41-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Specie I, figure 1 has been elected by Applicant in the response filed on 10/31/05.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-2, 7, 34-38, 41-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, lines 6-9, it is unclear. The phrase of "one or more removal ...from the circuit board...wherein breaking the substrate...the circuit board is destroyed" is not understood. What does applicant mean of "...for breaking the substrate in a predefined boundary between the key area and the circuit board to permanently detach the key area from the circuit board... wherein breaking the substrate...the circuit board is destroyed? Since as recited in line 3 that the key area of the substrate of the circuit board, the key area is belong in the define area of the circuit board, so when the removal feature of the substrate of the circuit board is breaking, the signal trace routed on the area including the removal feature is breaking that meaning the circuit board having a portion of the substrate is breaking too, and when

the substrate is breaking because of the signal trace is broken then the substrate being useless. It is contradiction. Please, clarify the claimed language.

Regarding claim 34, lines 15-16 and similar to claims 43 and 44, it is unclear.

The phrase of "the tab is removed by breaking the substrate in the specific area" is not understood, since as recited in claim 34, lines 3-14 that describes the structure of the tab, so when the tab being removed and breaking then the signal trace is breaking; therefore, the tab being useless.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

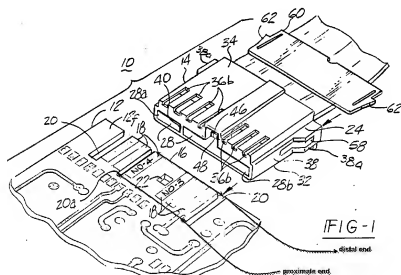
4. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Matson et al. (U.S. Patent '112) as in the record.

As best understood to claims 1-2, Matson discloses a circuit board (12, column 2, line 7) as shown in figures 1-2 comprising: a substrate which includes a specified area of the substrate that is used as a mechanism or uniquely identifier originally attached to the substrate/board (16, column 2, line 9) comprising:

signal means for (wire traces 18, and circuitries formed in/on the circuit board 12) conducting a signal between the mechanism (16) and the circuit board (12), the traces being routed on the mechanism; and

identification means for (labels No.1-No.6, figure 1 shows the label No.3 and No.4) identifying the mechanism (16);

wherein the circuit board becomes at least partly non-functional if the mechanism is detached from the circuit board.



***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 49-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matson ('112).

As to claims 49-53, Matson discloses all of the limitation of the claimed invention, except for the identification comprises a hologram or barcode. However, the barcode or hologram is well known in the art that provide an identification or logo for the product. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a barcode or hologram to modify the labels as taught by Matson for the purpose of verifying or identification product.

7. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matson ('112) in view of O'Connor et al. (U.S. Patent 6,450,704).

Matson discloses all of the limitations except for the trace being as an optical trace. O'Connor et al. teach a transparent substrate comprising an optical trace (see column 2, lines 1-14). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of O'Connor et al employed in the circuit board of Matson in order to provide a receive or transmit signal to the components mounted on the circuit board.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matson in view of Marrs et al. (U.S. Patent 5,355,283).

Matson discloses all of the limitations except for the identification chip being encapsulated. Marrs teaches a BGA with via interconnection comprising a chip being encapsulated mounted on a substrate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of Marrs employed in the circuit board of Matson in order to provide a protection for the chip from external impact.

#### ***Allowable Subject Matter***

9. Claims 34-39, 41-48 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

#### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-2, 7, 34-39, 41-54 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues:

For rejection on 112, second paragraph:

The applicant is amended claim 1 and believes it is overcome the 112 rejection (similar for claims 34 and 43-44).

Examiner disagrees. See the rejection and explanation in portions 1 and 2 above. Further, as rejected by 112, 2 paragraph as above, by breaking the key or tab that causes breaking the wiring/signal/optical circuit or trace formed on at least a portion of the substrate of the circuit board containing the key or tab so that cause short circuit to either the substrate or the circuit board. Therefore, the substrate being useless.

b) The reference does not show that the key area comprises an identification mechanism which uniquely identifies the key area as being originally attached to the circuit board.

Examiner disagrees. The reference was address the element (16) which is uniquely identifier the mechanism attached to or onto the substrate. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lee Jinhee can be reached on 571-272-1977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan T Dinh/  
Primary Examiner, Art Unit 2841.